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SUMMARY OF FISHERIES STATISTICS 1988

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Section 141, Water Act, 1989, transferred responsibility for the fisheries functions from Water Authorities to the new National Rivers Authority.

This Summary of Fisheries Statistics for 1988 was prepared by the Fisheries, Conservation and Recreation Department of the National Rivers Authority's North-West Region but covers a period when the Fisheries Section was still part of the Planning and Engineering Department of North West Water.

SUMMARY OF FISHERIES STATISTICS, 1988

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CATCH STATISTICS

1.1 Rod and Line - Information from Anglers' returns

1.1.1 Salmon Rod Catches by River and Month 1988

RIVER	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	TOTAL	AVERAGE WEIGHT (lb)
Border Esk (England)	-	-	1	-	-	2	29	89	100	83	304	8.32
Eden	17	34	45	39	26	25	75	221	449	306	1237	9.16
Derwent	-	-	-	-	-	1	103	446	562	337	1449	8.33
Cocker	-	-	-	-	-	-	-	-	5	7	12	8.20
Ellen	-	-	-	-	-	-	1	5	14	21	41	7.03
Ehen	-	-	-	-	-	2	42	82	80	59	265	7.22
Calder	-	-	-	-	-	5	-	7	7	4	23	6.54
Irt	-	-	-	-	-	2	13	35	33	23	106	7.32
Esk	-	-	-	-	-	-	5	16	21	9	51	7.64
Duddon	-	-	-	-	-	-	7	6	20	14	47	7.44
Leven & Brathay	-	-	-	-	-	2	19	61	46	23	151	6.66
Crake	-	-	-	-	-	1	6	25	24	32	88	6.26
Kent	-	1	3	-	3	7	52	77	102	93	338	6.79
Lune	-	2	1	2	7	12	100	260	475	575	1434	8.26
Others Northern Area (Annas, Keer, Bela)	-	-	-	-	-	-	-	-	-	1	1	5.25
Ribble	-	-	2	4	1	5	63	140	191	219	625	9.02
Hodder	-	-	-	-	-	2	8	18	51	70	149	8.96
Wyre	-	-	-	-	-	-	-8	18	28	53	107	7.74
TOTALS	17	37	52	45	37	66	531	1506	2208	1929	6428	8.44

1.1.1 Salmon Rod Catches, Historical Data

RIVER	1984		1985		1986		1987		1988	
	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)
Border Esk (England)	135	9.18	88	9.32	267	9.42	139	8.21	304	8.32
Eden	697	9.14	691	9.97	756	10.13	839	9.49	1237	9.16
Derwent	569	7.75	1062	8.42	532	8.89	803	8.88	1449	8.33
Cocker	35	6.71	21	7.38	25	7.88	21	7.67	12	8.20
Ellen	16	5.14	26	6.80	12	6.17	29	5.83	41	7.03
Ehen	63	6.37	110	7.36	77	7.41	117	6.95	265	7.22
Calder	20	5.86	3	7.66	4	9.38	4	5.12	23	6.54
Irt	48	6.37	69	6.40	77	7.47	48	7.38	106	7.32
Annas	3	4.3	3	6.92	8	5.44	2	4.75	1	5.25
Esk	2	8.00	38	7.66	43	10.71	25	11.77	51	7.64
Duddon	7	6.96	31	7.17	38	6.73	28	7.34	47	7.44
Leven	19	6.68	48	6.63	33	6.83	46	6.67	151	6.66
Crake	18	6.25	9	7.36	30	5.93	22	5.99	88	6.26
Kent	47	5.40	97	6.75	239	6.31	179	7.98	338	6.79
Bela	-	-	-	-	-	-	1	8	-	-
Lune	330	7.49	617	9.33	485	8.77	874	8.11	1434	8.26
Ribble	266	7.76	229	9.35	368	9.67	492	8.21	625	9.02
Hodder	118	7.60	110	11.19	84	9.96	94	10.07	149	8.96
Wyre	6	5.13	8	5.00	2	12.00	19	6.55	107	7.74
Keer	1	9.25	-	-	-	-	-	-	-	-
Totals and average weights	2400	7.99	3260	8.90	3080	8.99	3782	8.55	6428	8.44

1.1.2 Migratory Trout Rod Catches by River and Month - 1988

RIVER	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	TOTAL	AVERAGE WEIGHT(lb)
Border Esk (England)	-	31	216	485	143	28	-	903	1.70
Eden	-	79	481	461	210	66	30	1327	2.07
Derwent	-	11	57	34	22	8	4	136	2.44
Cocker	-	-	2	3	1	-	-	6	2.45
Ellen	1	1	2	3	2	1	-	10	2.80
Ehen	-	-	5	44	46	22	8	125	2.80
Calder	-	-	1	-	2	-	-	3	1.75
Irt	-	-	16	27	51	8	4	106	2.08
Esk	-	-	12	18	40	20	3	93	2.31
Duddon	-	-	-	7	7	9	2	25	2.23
on Leven & Brathay	-	6	2	63	46	22	9	148	1.87
Crake	-	-	1	38	17	25	5	86	1.81
Kent	-	3	19	135	119	76	9	361	2.16
Lune	-	70	321	664	522	228	50	1855	2.14
Others, Northern Area	-	7	-	11	27	20	6	71	1.56
Ribble	-	14	19	83	107	61	17	301	2.10
Hodder	-	13	28	219	221	66	-	547	2.36
Wyre	-	1	1	17	30	15	7	71	2.59
TOTALS	1	236	1183	2312	1613	675	154	6174	2.04

1.1.2 Migratory Trout Rod Catches - Historical Data

RIVER	1984		1985		1986		1987		1988	
	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)
Border Esk (England)	632	1.87	619	1.69	639	1.74	682	1.59	903	1.70
Eden	1216	1.74	698	2.20	478	1.93	770	1.88	1327	2.07
Derwent	350	1.78	279	2.18	210	2.82	218	2.43	136	2.44
Cocker	2	2.25	4	2.56	8	9.75	8	1.69	6	2.45
Ellen	4	1.25	1	2.00	4	0.94	22	2.32	10	2.80
Ehen	231	1.94	196	1.67	244	2.05	230	1.59	125	2.80
Calder	-	-	-	-	12	1.00	-	-	3	1.75
Irt	40	1.78	45	2.98	41	2.99	100	2.08	106	2.08
Esk	19	2.09	80	1.70	45	1.51	129	1.93	93	2.31
Duddon	13	2.83	20	2.20	15	1.57	17	1.37	25	2.23
Leven	74	1.87	79	2.38	137	1.72	124	1.63	148	1.87
Crake	65	1.64	25	2.79	35	1.23	50	1.42	86	1.81
Kent	67	1.98	148	2.22	186	1.65	413	2.09	361	2.16
Lune	1220	1.94	1069	2.36	1115	1.88	1,538	2.25	1855	2.14
Others, Northern Area	66	2.00	104	2.19	31	2.02	157	1.38	71	1.56
Ribble	186	2.13	201	2.15	315	2.05	372	1.83	301	2.10
Hodder	247	1.90	401	2.12	259	1.94	327	2.03	547	2.36
Wyre	14	1.48	24	1.58	-	-	55	1.29	71	2.59
Totals and average weights	4446	1.86	3993	2.14	3774	1.94	5212	1.96	6174	2.04

1.2 Commercial Catches by Nets and Fixed Engines

1.2.1 Commercial Salmon Catches by River/District and Month - 1988

RIVER/DISTRICT (TYPE OF NET)	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT	TOTAL	AVERAGE WEIGHT (lb)
Eden & Border Esk	-	-	14	44	166	280	344	32	880	8.19
Coastal Drift	-	-	-	-	39	206	515	-	760	6.95
South & West Cumbria Nets & Fixed Engines	-	-	-	-	-	-	-	-	-	-
Duddon (Draw Nets)	-	-	-	-	1	14	-	-	15	8.85
Leven (Lave Nets)	-	-	-	-	8	13	6	-	27	8.07
Kent (Lave Nets)	-	-	-	-	12	66	24	-	102	7.30
Lune (Draw Nets)	-	-	-	-	7	29	40	-	76	7.78
Lune (Drift Nets)	-	-	-	8	44	678	1672	-	2402	7.17
Lune (Heave Nets)	-	-	-	17	80	180	303	-	580	8.87
Ribble (Drift Nets)	-	-	-	6	36	359	428	-	829	10.62
Total catch, nets and fixed engines									5671	8.20

1.2.1 Commercial Salmon Catches - Historical Data

RIVER	1984		1985		1986		1987		1988	
	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)
Eden & Border Esk	4261	7.02	585	8.60	2971	9.54	1999	8.81	880	8.19
Coastal Drift	735	8.24	417	7.29	868	7.60	416	7.95	760	6.95
South & West Cumbria nets and fixed engines	-	-	-	-	11	7.55	-	-	-	-
Duddon	51	7.59	10	9.25	16	9.42	19	9.75	15	8.85
Leven	42	5.76	1	10.50	7	6.71	22	7.94	27	8.07
Kent	131	6.64	20	10.25	61	7.16	26	8.04	102	7.30
Lune Draw Nets	54	5.76	15	8.33	59	8.02	25	8.06	76	7.78
Lune Drift Nets	1306	6.79	912	7.48	1497	7.59	1703	7.05	2402	7.17
Lune Heave Nets	870	6.25	204	8.59	758	8.70	344	7.73	580	8.87
Ribble	507	11.25	395	12.19	434	11.09	508	10.36	829	10.62
TOTALS	7957	7.26	2559	8.55	6682	8.82	5062	8.22	5671	8.20

1.2.2. Commercial Catches of Migratory Trout by Nets and Fixed Engines 1988

RIVER/DISTRICT (TYPE OF NET)	APRIL	MAY	JUNE	JULY	AUG.	SEPT	TOTAL	AVERAGE WEIGHT (lb)
Eden & Border Esk	6	1469	3148	296	28	2	4949	2.16
Coastal Drift	-	-	5	2	-	-	7	4.35
South & West Cumbria								
Nets & Fixed engines	-	-	-	-	-	-	-	-
Duddon (Draw Nets)	-	-	79	76	-	-	155	2.62
Leven (Lave Nets)	-	-	16	11	1	-	28	5.18
Kent (Lave Nets)	-	-	9	14	4	-	27	4.42
Lune (Draw Nets)	-	24	61	32	1	-	118	3.02
Lune (Drift Nets)	-	27	107	27	3	-	164	4.77
Lune (Heave Nets)	-	192	1358	181	11	-	1742	2.86
Ribble (Drift Nets)	-	1	6	9	1	-	17	8.2
Total Catch, nets and fixed engines							7207	4.17

1.2.2 Commercial Catches of Migratory Trout - Historical Data

RIVER	1984		1985		1986		1987		1988	
	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (b)
Eden and Border Esk	8291	2.34	5062	2.42	4707	2.40	5109	2.42	4949	2.16
Coastal Drift	31	5.00	5	5.0	34	5.62	12	4.88	7	4.35
South & West Cumbria nets and fixed engines	-	-	-	-	49	2.48	-	-	-	-
Duddon	101	2.83	38	3.71	31	3.17	73	2.42	155	2.62
Leven	30	4.18	1	5.25	6	3.50	6	4.00	28	5.18
Kent	43	3.06	5	4.30	13	4.73	5	5.40	27	4.42
Lune Draw Nets	44	2.45	66	2.12	21	2.60	32	2.67	118	3.02
Lune Drift Nets	289	4.50	508	4.10	192	5.17	172	4.74	164	4.77
Lune Heave Nets	1865	2.89	738	3.40	557	3.18	605	3.14	1742	2.86
Ribble	54	7.47	44	7.98	23	7.51	18	8.64	17	8.20
	10748	2.54	6467	2.71	5633	2.62	6032	2.59	7207	4.17

2. FISH CULTURE AND HATCHERY OPERATIONS

2.1 Brood fish collection

	<u>Salmon</u>		<u>Sea Trout</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
<u>Northern District</u>				
Eden System	51	63	-	-
West Cumbria	48	74	1	2
<u>Central District</u>				
Broadrairie Trap (R. Lune)	104	209	-	-
South Cumbria Rivers	-	-	19	98
Ribble	34	38	(
Hodder	16	23	(23	23
Wyre	3	3	(

2.2 Hatchery Operations and Salmon and Sea Trout Stocking

2.2.1 Cairn Beck and Cockermouth Hatcheries *

2.2.1.1 Numbers of ova laid down

<u>Species</u>	<u>No. of ova</u>	<u>Source</u>
Salmon	136,350	Eden System (Cairn Beck)
Salmon	315,500	West Cumbria (Cockermouth)

2.2.1.2 Salmon and Sea Trout Planting
ex-Holmwrangle 1988

<u>River</u>	<u>Fed Fry</u>		<u>0+Parr</u>	<u>1+Parr</u>	<u>Smolts</u>
	<u>Salmon</u>	<u>Sea Trout</u>	<u>Salmon</u>	<u>Salmon</u>	<u>Salmon</u>
Eamont	30,000	-	-	-	-
Lowther	10,000	-	-	-	-
Eden	82,700	-	-	-	-
Cocker	149,000	-	-	-	-
Derwent	73,000	-	-	-	-
Marron	54,000	-	-	-	-
Ellen	18,000	-	-	-	-

* Ova initially laid down at these hatcheries and then transferred at eyed stage to Holmwrangle Hatchery (Lakeland Smolts Ltd) for hatching and growing on to fed fry stage.

2.2.2 Middleton Hatchery

2.2.2.1 Numbers of ova laid down, 1988 #

<u>Species</u>	<u>No. of ova</u>	<u>Source</u>
Salmon	1,276,000	Lune
Salmon	267,710	Ribble
Salmon	143,160*	Hodder
Salmon	13,760	Wyre
Sea Trout	156,400	South Cumbria Rivers
Sea Trout	51,680	(Ribble ((Hodder
Char	172,000+	Coniston

* An additional 16,000 ova taken to Witcher Well.

+ Laid down Spring 1988.

Including ova intended to be transferred at the eyed stage to Holmwrangle Hatchery (Lakeland Smolts Ltd) for hatching and ongrowing to fed fry stage.

143160

267

2.2.2.2 Salmon and Sea Trout Planting Ex-Middleton, 1988

<u>River</u>	<u>Eyed Ova</u>		<u>Unfed Fry</u>		<u>Fed Fry*</u>	
	<u>Salmon</u>	<u>Sea Trout</u>	<u>Salmon</u>	<u>Sea Trout</u>	<u>Salmon</u>	<u>Sea Trout</u>
Duddon	-	-	-	40,000	8,300	45,000
Crake	-	-	-	20,000	-	20,000
Eea	-	-	-	13,474	-	-
Keer	-	-	-	13,800	-	-
Lune	190,820	-	-	-	767,747 +	-
Greta	-	-	-	-	42,000	-
Wenning	-	-	-	-	69,000	-
Wyre	-	-	-	-	2,000x	-
Ribble	-	-	16,850	10,400	116,900	-
Hodder	-	-	-	10,776	92,600I	-

* Grown from eyed ova to fed fry at Lakeland Smolt Ltd.

+ Of which 10,910 were microtagged prior to stocking

I Of which 11,235 were microtagged prior to stocking

x An additional 9,000 fed fry and 500 underyearling parr reared at Street hatchery were also stocked into the Wyre.

16850

116,900

2.2.3.1 Salmon Planting in Central District Carried out by N.W.W. from Non-N.W.W. Hatchery Source

<u>Date</u>	<u>Receiving River</u>	<u>No.</u>	<u>Size</u>	<u>Source</u>
16.2.88	Ribble	<u>1,492</u>	Parr	Dunsop Trout Farm
1.3.88	Ribble	<u>5,500</u>	Yearling Parr	Brow Well Fisheries
2 & 8.3.88	Wyre	14,000	" "	" " "
2.4.88	Lune trib	100	4"	" " "
2.4.88	Bela	4,900	4"	" " "
31.3.88	Hodder	<u>4,652</u>	Yearling Parr	Dunsop Trout Farm
21&25.10.88	Ribble	<u>21,109</u>	Underyearl'g parr	" " "
23.11.88	Coniston	148,768	" "	Lakeland Smolt (Norwegian origin)
23.11.88	"	58,998	" "	Lakeland Smolt (Scottish origin)

22601

116900
16850
133,750

3. RESTOCKING WITH TROUT AND FRESHWATER FISH

3.1 Non-Migratory Trout

3.1.1 Stocking by Angling Associations and Fish Farms not excluded under Section 34 of the Salmon Act 1986.

<u>Area</u>	<u>No. of Section 30 Consents Issued</u>	<u>Total No. of Brown Trout</u>	<u>Total No. of Rainbow Trout</u>	<u>Total No. of American Brook Trout</u>
Northern District	65	1,600	105,128	-
Central District	235	44,088	377,261	500
Southern District	149	9,115	74,757	100

3.1.2 Non-migratory trout stocking carried out by NWW 1988

3.1.2.1 Northern District

<u>Date</u>	<u>Stocking Location</u>	<u>Brown Trout</u>	
		<u>Number</u>	<u>Size</u>
	NIL		

3.1.2.2 Central District

<u>Date</u>	<u>Stocking Location</u>	<u>Brown Trout</u>	
		<u>Number</u>	<u>Size</u>
17.4.88	Duddon Estuary	700	5-7"
	trib	40	9"
29.6.88	Lune	100	10-12"
	Ribble	"	"
13.7.88	Lune	100	"
	Ribble	"	"
27.7.88	Lune	42	"
	Ribble	45	"
30.9.88	Greta	1,625	3-5"

3.1.2.3 Southern District

<u>Date</u>	<u>Stocking Location</u>	<u>Brown Trout</u>	
		<u>Number</u>	<u>Size</u>
	NIL		

3.2 Freshwater Fish

3.2.1 Stocking by Angling Associations, etc. 1988

Area	No.of S.30		Numbers stocked of each species															
	Consents		Roach	Rudd	Bream	Chub	Dace	Common Carp	Crucian Carp	Grass Carp	Mirror Carp	Tench	Barbel	Gudgeon	Perch	Golden Orfe	Pike	Mixed Coarse
	Issued																	
Northern District			-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	100
Central District	31		7,714	4,350	9,530	150	-	1,356	700	600	12	2,213	-	-	1,785	-	-	-
Southern District	66		43,373	2,787	8,362	1,130	1,019	5,552	2,827	89	712	1,243	52	524	10,337	80	17	302

3.2.2 Total number of fish transfers carried out by NWW on behalf of Angling Clubs 1988

<u>Area</u>	<u>Transfers</u>	Roach	Rudd	Bream	Chub	Carp	Crucian Carp	Trout	Tench	Gudgeon	Perch	Pike	Mixed Coarse
Northern District	-	-	-	-	-	-	-	-	-	-	-	-	-
Central District	9	-	-	-	-	-	-	-	-	-	5,395	-	-
Southern District	42	21,350	2,000	2,120	-	325	3,212	50	40	-	8,500	203	372,020

3.2.3 Total number of fish rescues carried out by NWW on behalf of Angling Clubs 1988

<u>Area</u>	<u>Rescues</u>	Roach	Rudd	Bream	Chub	Carp	Crucian Carp	Grass Carp	Tench	Gudgeon	Perch	Pike	Mixed Coarse
Northern District	1	-	-	-	-	-	-	-	-	-	350	-	-
Central District	3	-	-	-	-	-	-	-	-	-	-	-	35,600
Southern District	22	28,076	10	-	30	173	-	-	16	2	18	-	163,525

3.2.4 Fish Grants from NWW Stocks 1988

Area	Association	Receiving Water	Source	Species	No.	Size
Northern District	-	-	-	-	-	-
Central District	-	-	-	-	-	-
Southern District	Nantwich A.C.) Crewe Pioneers A.C.) Wyche A.C.)	River Weaver	Armada Fisheries	Chub	1000	2"-3"

3.2.5 Fisheries surveys carried out in connection with Assessment, Improvement and Development of Fisheries 1988

Area	Electro Fishing	Netting	Biological	Water Analysis	Advisory Visit
Northern District	10 Surveys 88 Sites	-	4	7	53
Central District	10 Surveys 55 Sites	-	7	16	21
Southern District	34 Surveys 322 Sites	16	3	26	61

4. FISH MOVEMENT RECORDED AT AUTHORITY FISH COUNTERS 1988

4.1 River Lune

Month	Broadrairie		Forge Weir, Halton				Skerton Weir
	Fish under 4 lb.	Fish over 4 lb.	Fish		Fish		Fish over 4 lb.
			Under 4 lb.		Over 4 lb.		
			Crest	Pass	Crest	Pass	
January)						
February)						
March)	Switched off		UNDER			SWITCHED
April)						
May		6	9	RE-CONSTRUCTION			OFF
June		176	15				
July		143	47				
August		466	95				
September		259	211				
Oct 1-15		373	1231				
Oct 16-31		187	422				
Nov)	Switched					
Dec)	off					
Total		1610	2030				

4.2 River Kent

The new counter at Basinghyll on the River Kent has been under test this year and, following modifications, will be fully operational for 1989.

4.3 River Leven

Haverthwaite Counter (Eels dam)

Disconnected pending redesign and relocation.

4.4 River Duddon

Duddon Hall Counter 1988

Month	Fish under 4 lb.	Fish over 4 lb.
January	0	0
February)	SWITCHED OFF	
March)		
April	0	0
May	18	4
June	125	32
July	324	44
August	160	44
September	91	11
October	80	14
November	45	26
December	35	11
Total	878	186

4.5 River Ribble Catchment 1988

	Waddow Hall River Ribble		Locks Weir River Ribble	Winckley Hall River Hodder	
	Under 4 lb.	Over 4 lb.		Under 4 lb.	Over 4 lb.
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	4	1	-	53	0
May	233	27	-	222	1
June	*	*	-	1499	29
July	*	*	120	1013	12
August	*	*	174	349	6
September	*	*	186	399	33
October	*	*	270*	325	41
November	*	*	200	125	27
December	*	*	-	66	26
Total	4699*	1219*	950	4051	175

* Estimate - Counter
daily readings
were suspect
All Counters switched off January, February and March.

4.6 River Wyre

Garstang Counter

Out of commission due to instrument faults.

4.7 River Derwent

Yearl Counter.

Only Operational Under Trial

4.8 River Esk (SW Cumbria)

Cropple How

Only Operational Under Trial.

5. COUNTS OF SALMON AND SEA TROUT SPAWNING REDDS 1988

5.1 Northern District

<u>River/Area</u>	1984 Salmon	1985 Salmon Sea Trout	1986 Salmon Sea Trout	1987 Salmon Sea Trout	1988 Salmon Sea Trout
Eden d/s Eden Grove	9	22 -)No counts possible)due to very high)river levels.	No counts possible high rivers	No counts possible high rivers
Eden d/s Eden Brow	12	- -)		
Eden u/s Temple Sowerby	150	273 -	204 - (on tribs only)	505 -	110 (Tribes 41) (only limited amount of counting possible)
Eden d/s Temple Sowerby	130	96 -	No counts possible due to high water levels.	No counts possible) high rivers)))	
Eamont	44	No counts possible)))	451)))	
Lowther	124)))	261)))	Counting Not Possible
Irthing	36	33 7))No counts possible))due to high river))levels.)	No counts possible) high river)))	
Gelt	4	3 27)))		
Border Esk	5	13 -)))		
Black & White Esk	No	counts possible)))		
Liddel	"	" ")))		
Lyne	"	" ")))		
<u>Note</u>		440	204	1669	151

In all these years, high and turbid river conditions during the autumn made redd counting difficult or impossible, and the figures given above are undoubtedly incomplete.

<u>River/Area</u>	1985		1986		1987		1988	
	Salmon	Sea Trout	Salmon	Sea Trout	Salmon	Sea Trout	Salmon	Sea Trout
Ellen	147	96	84	-	70	64	210	171
Derwent	160	65	69	46	96	56	144	26
Marron	45	86	44	58	61	249	104	50
Cocker	66	71	104	74	144	103	187	16
Greta	35	12	64	88	129	70	109	16
Ehen	149	88	25	-	288	1192	39*	98
Keekle (Dub Beck)		9	No counts due to flooding		Nil	23	-*	-
Calder	58	32	No counts due to flooding		30	142	9*	27
Irt	189	62	96	13	340	300	395	287
Bleng	43	-	14	-	65	255		
Esk	90	56	No counts due to flooding		57	124	64	257
Mite	16	-	17	-	118	195) Heavy Flows) prevented	
Annas	21	-	14	-	36	28) counting	

712

531

* Counts incomplete due to sickness absences
of staff.

1434

1261

Note

During 1984 the intermixture of small salmon and large sea trout on the redds in the River Ehen made differentiation impossible.

The majority of counts for Rivers Ellen, Derwent, Marron, Cocker and Greta were made only on tributaries and shallower waters in 1986 due to high river levels.

5.2

Central District

<u>River</u>	1985		1986		1987		1988	
	Salmon	Sea Trout	Salmon	Sea Trout	Salmon	Sea Trout	Salmon	Sea Trout
Duddon	62	196	50	178	63	249	106	390
Crake	153	306	171	146	127	195	228	373
Leven & tribs	21	258	35	150	159	305	433	648
Eea	11	338	47	50	-	423	-	321
Winster	18	241	46	144	-	291	52	234
Gilpin	21	488	-	205	-	280	54	323
Kent & tribs.	493	1067	197	479	752	1325	1472	1810
Bela	20	63	-	25	54	57	45	76
Keer	10	623	7	259	13	496	24	677
Lune	296	113	52	263	521	63	584	17
Rawthey	13	48	9	53	41	49	48	67
Dee	14	58	27	62	105	45	100	95
Greta	49	46	20	24	48	59	74	79
Wenning	35	242	27	105	44	231	89	319
Other Lune tribs.	10	714	8	12	102	560	158	509
Ribble	63	142	88	104	381	298 *	489	359
Hodder	109	102	97	-	377	89 *	444	326
Wyre	119	150	-	-	82	53	399	132

1517

881

2869

4799

* High water hampered counts on the mid and upper Ribble and the Hodder

6. FISH MORTALITIES 1988

6.1 Significant Fish Kills Reported

6.1.1 Northern District

<u>Date</u>	<u>Location</u>	<u>No.</u>	<u>Species</u>	<u>Cause</u>
26.1.88	Wiza Beck.	Count Not Possible	Brown Trout	Slurry (ex. dairy farm)
8.8.88	Fellside Beck (R. Caldew)	100	Brown Trout	Unknown
16.8.88	Chalk Beck (R. Wampool)	800	Brown Trout and Sea Trout	Slurry (ex. dairy farm)
7.11.88	Blackrack Beck (R. Petterill)	30	Brown Trout	Unknown

6.1.2 Central District 1988

Date	Location	No.	Species	Cause
21.2.88	Aspland Beck	238	Brown Trout	Farm slurry
	(Trib. R. Greta)	36	Salmon	
24.2.88	Dragley Beck)	31	Brown Trout	Toxic discharge
27.2.88)	329	" "	
29.2.88)	40	" "	
)	1	Salmon	
31.3.88)	150	Brown Trout	
)	5	Eels	
11.5.88)	1	Brown Trout	
16.5.88	Trawden Beck & Colne Water	97	Brown Trout	Farm Slurry
31.5.88	R. Loud	Numerous	Minnows & Gudgeon	Unknown.
14.6.88	Stainton Beck	50	Brown Trout	Unknown
14.6.88	Sabden Brook	43	Brown Trout	Water Mains
		2	Stoneloach	disinfection
14.6.88	Colton Beck	213	Salmon	Silage liquor
		2618	Trout	
15.6.88	R. Gowan	85	Salmon	Cement Spillage
		68	Trout	
26.6.88	R. Ribble	96	Sea Trout	Presumed build
	Dinckley to	8	Salmon	up of decaying
	Preston	40	Chub	weed + silt caused
		2	Brown Trout	by weeks of low
		3	Roach	flows + flushed
		7	Dace	down by heavy rain
		8	Barbel	fall.
		16	Flatfish	
8.9.88	Lancaster Canal	20	Tench	Unknown.

6.1.3 Southern District

Date	Location	No.	Species	Cause
6.1.88	Rose Farm Pool, Acton Bridge.	2	Mirror Carp	Unknown
8.3.88	R. Weaver, Winsford	(4000 (100 (200	Roach) Bream) Gudgeon)	Saline intrusion
10.3.88	3 Pools Watercourse, Crossens	(45 7	Roach) Bream)	Sewage discharge
16.3.88	Calderstones Park, Liverpool	32	Tench	Unknown
21.3.88	Rochdale Canal, Littleborough	(2500 ((11 (50 (5000	Roach)) Pike) Perch) Fry)	Chemical Spillage
22.3.88	Rochdale Canal, Oldham	(190 (7	Roach) Perch)	Factory discharge
31.3.88	Cheethams Dam, Stalybridge	5	Carp	Unknown
16.4.88	Leisure Lakes, Mere Brow	(13 1	Tench) Pike)	Unknown
16.4.88	Salt Pit Lake, Eccleston	14	Trout	Farm Slurry
20.4.88	Pilsworth Res. Bury	12	Carp	Unknown
21.4.88	Leisure Lakes, Mere Brow	4	Tench	Unknown
22.4.88	R. Spodden, Rochdale	(30 (3 (7	Roach) Perch) Small Coarse) fish)	Factory discharge
26.4.88	Paddock Dam Eccleston	2	Carp	Unknown
26.4.88	Micker Brook, Cheadle	(6 (3800 (Brown Trout) Small Coarse) fish)	Factory discharge
28.4.88	Clarence Park Lake Bury	100	Perch	Unknown

6.1.3

Southern District

Date	Location	No.	Species	Cause
3.5.88	R. Yarrow, Croston	80	Coarse Fish	Possible agricultural origin.
5.5.88	North Road Lake, Glossop	10	Carp	Unknown
16.5.88	Sandymoor Pool Runcorn	2	Carp	Unknown
11.5.88	Radway Green Pool (200	Bream)	Unknown
	(500	Roach)	
9.5.88	Clarence Park Lake Liverpool	60	Perch	Unknown
9.5.88	Moreton Brick Works Moreton.	Several Hundred	Perch	Unknown
13.5.88	Diamond Rope Works, (Shaw	7 (2	Roach) Perch)	Farm Slurry
16.5.88	Kirklees Brook, Bury	150	Small Coarse fish.	Sewer collapse
18.5.88	Kirklees Brook, Bury(2 (Many (Brown Trout) Small Coarse) fish)	Discharge of dye from culvert
21.5.88	Heaton Res.	50	Perch	Unknown
24.5.88	Kirklees Brook, Bury	(169 (Thousands (Brown Trout) Small Coarse) fish)	Discharge from culvert
27.5.88	Trent & Mersey Canal, Dutton	(30 + (12	Roach) Perch)	Silage liquor
2.6.88	Huyton Lodge, Adlington	(110 (2	Roach) Perch)	Unknown.
4.6.88	R. Tame, Stalybridge(34 (73 (1 (240 (Brown Trout) Roach) Chub) Small Coarse) fish)	Chemical spillage

6.1.3

Southern District

Date	Location	No.	Species	Cause
4.6.88	Barlington Hall Farm, Weaverham	3	Trout	Pig slurry
8.6.88	Hey Brook, Rochdale.	301	Brown Trout	Unknown
8.6.88	Leeds Liverpool Canal, Wigan.	41	Roach	Unknown
9.6.88	Park Bottom Pool, Disley.	1000	Roach	Unknown
13.6.88	Shore Top Res. Radcliffe	(14 (8 (3 (62	Carp Bream Tench Roach)))) Silage liquor
19.6.88	Gibsons Lodge, Greenfields.	31	Brown Trout	Silage liquor
9.6.88	Farm House Pool, Lower Peover.	18	Rainbow Trout	Nitrate Fertilizer
16.6.88	Pilsworth Clough Lodge, Pilsworth	100	Roach	High temperatures
19.6.88	Crompton Lodges, Bolton	Very many	Roach	Low O ₂
20.6.88	Don International Lodge, Pilsworth	(2 (1 (2 (12 (290	Carp Tench Bream Perch Roach))))) Farm slurry
20.6.88	Rainhill Hospital, St. Helens.	(2000 (9 (3	Roach Tench Carp))) Hospital discharge
23.6.88	Down Holland Brook Formby	400	Roach	High temperatures
25.6.88	R. Weaver, Wrenbury	200	Small Coarse fish	Farm slurry
27.6.88	Astbury Mere, Congleton.	50	Roach	High temperatures
27.6.88	Mill Dale, Betterley.	250	Trout	High temperatures

6.1.3

Southern District

Date	Location	No.	Species	Cause
27.6.88	R. Weaver, Winsford	Several Hundred	Roach/Bream	Sewage discharge
28.6.88	Leyland Motors Pond Leyland	40	Roach	Diesel Oil
28.6.88	Pilsworth Fisheries, Heywood	(12 (19	Bream) Roach)	Unknown
29.6.88	Clowbridge Res. Burnley.	40	Rainbow Trout	Unknown
29.6.88	Chorlton Marina, Manchester	(2 (34 (6 (4 (1	Pike) Tench) Chub) Bream) Crucian)	Unknown
29.6.88	Monarch Mill Lodge Royton	(28 (9 (4 (1	Perch) Roach) Bream) Tench)	Low O ₂
1.7.88	Swithamley Hall Lake,	20	Brown Trout	Silage Liquor
3.7.88	Clover Leaf Pool, Willaston	8	Mirror Carp	Unknown
3.7.88	Shropshire Union Canal, Middlewich	(40 (12	Roach) Gudgeon)	Unknown
4.7.88	Alden Lodge, Helmshore	(44 (28 (8	Roach) Perch) Chub)	Low O ₂
4.7.88	Abbeyfields Pool, Sandbach	(40 (60	Roach) Bream)	Unknown
6.7.88	Bar Hill Top Pool, Madeley	(3 (1	Bream) Roach)	Unknown
17.7.88	Three Pools, Southport	(4600 (1400 (200	Roach) Bream) Tench)	Sewage discharge
25.7.88	Downholland Brook, Formby.	74	Roach	Unknown.
27.7.88	Catteries Pool, Clatterbridge.	5	Carp	Unknown

6.1.3

Southern District

Date	Location	No.	Species	Cause
4.8.88	Glossop Brook, Glossop	6	Brown Trout	Industrial discharge
11.8.88	Daisy Hill, Birtle Moor, Bury	18	Carp	Unknown
14.8.88	Orchards Pool, Holmes Chapel	(470 (20 (10	Roach) Perch) Gudgeon)	Unknown
16.8.88	Border U.K. Lodge Unsworth	3	Carp	Unknown
2.9.88	Lime Tree Pond, Failsworth	(4 (38 (11 (3 (4	Chub) Roach) Rudd) Tench) Crucian)	Unknown
2.9.88	Upper Park Lake, Birkenhead	(11 (5 (66 (59 (27 (1 (100	Pike) Carp) Bream) Roach) Perch) Tench) Small Coarse fish)	Low O ₂
2.9.88	Leisure Lakes, Mere Brow.	300	Bream	Unknown
4.10.88	Debdale Res, Manchester	300	Perch	Remedial works at Reservoir
19.10.88	Rhodes Lodges, Middleton	5	Carp	Unknown

6.2

Total Numbers of Diseased Fish Removed during 1988

<u>Location</u>	<u>Adult Salmon</u>		<u>Parr</u>	<u>Smolts</u>	<u>Sea Trout</u>		<u>Brown Trout</u>	<u>Others</u>
	<u>M</u>	<u>F</u>			<u>M</u>	<u>F</u>		
R. Lune	25	11	0	3	6	9	5	0
R. Kent	24	18	0	0	34	23	0	13 Kelt
R. Leven	196	71	0	0	0	1	0	98 Kelt
R. Ribble	2	1	0	0	0	3	0	1 Kelt
R. Hodder	3	1	0	0	4	7	0	0
R. Wyre	0	2	0	0	0	0	3	0
Boundary Water Park	-	-	-	-	-	-	-	2 Rainbow trout
Newsham Park Lake	-	-	-	-	-	-	-	5 Tench
Sandymoor Pool	-	-	-	-	-	-	-	6 Carp
St. Helens area	-	-	-	-	-	-	-	2 Carp
Moreton Brickworks	-	-	-	-	-	-	-	6 Perch
Pilsworth Fishery	-	-	-	-	-	-	-	3 Carp
Abram area	-	-	-	-	-	-	-	3 Carp
Glossop area	-	-	-	-	-	-	-	6 Carp

DETAILS OF FISHERIES PROSECUTIONS

1988

Nature of Offence	Section of 1975 Act	Total Charges	Dismissed	Withdrawn	Conditional Discharge	Absolute Discharge	Total Fines £	Costs £	Remarks
Use of illegal instrument (firearm)	1	1	0	0	0	0	50	10	
Use of illegal instrument (gaff)	1	5	0	0	0	0	120	20	
Use of illegal instrument (light)	1	10	0	2	0	0	450	190	1 sentence of 180 hours Community Service
Use of illegal instrument (snatch)	1	2	0	0	0	0	180	45	
Use of illegal instrument (snare)	1	9	0	1	0	0	475	150	
Taking unclean fish	2	6	0	0	0	0	215	75	
Buys, sells or exposes for sale or has possession of unclean fish	2	6	0	0	0	0	200	60	
Use of an unauthorised fixed engine	6	4	0	0	0	0	750	150	

DETAILS OF FISHERIES PROSECUTIONS

1988

Nature of Offence	Section of 1975 Act	Total Charges	Dismissed	Withdrawn	Conditional Discharge	Absolute Discharge	Total Fines £	Costs £	Remarks
Fishing for or taking freshwater fish during close season	19	39	0	4	0	0	1125	370	
Fishing for or taking trout during close season	19	6	0	0	0	0	185	150	
Fishing for or taking salmon during close season	19	9	0	0	0	0	420	125	
Fishing with unlicensed instrument (net)	27	38	3	0	0	1	1385	515	
Fishing with unlicensed instrument (hands)	27	5	0	0	0	0	260	50	
Fishing with unlicensed rod and line	27	402	0	32	2	3	8460	4327	
Obstruction of Bailiff	31	4	0	0	0	0	260	70	
Failing to state correctly name and address/Failing to produce a valid licence	35	128	0	17	0	2	2724	1258	
Handling salmon in suspicious circumstances	Salmon Act 1986	4	0	0	0	0	230	80	
Theft of fish	Theft Act	36	0	2	1	0	685	285	

DETAILS OF FISHERIES PROSECUTIONS

1988

Nature of Offence	Byelaw	Total Charges	Dismissed	Withdrawn	Conditional Discharge	Absolute Discharge	Total Fines £	Costs £	Remarks
Fishing during annual close season for Salmon	2	6	0	0	6	0	0	0	
Fishing during weekly closetime for Salmon and Trout	8	5	0	0	0	0	50	50	
Use of illegal nets	10	6	0	0	0	0	500	20	1 Custodial Sentence of 28 days
Removal of fish	15	1	0	0	0	0	25	15	
Using maggot as hook bait	16	78	0	2	0	0	1720	417	
Using bait not on or attached to a hook	16	35	0	0	0	0	980	150	
Taking undersized fish	17	2	0	0	0	0	80	35	
Use of keep nets during the close season	18	7	0	0	0	0	155	150	
Use of worms as bait	20	2	0	0	0	0	30	30	
Use of oversized hooks/weight of lures	21	2	0	0	0	0	100	40	

DETAILS OF FISHERIES PROSECUTIONS

1988

Nature of Offence	Byelaw	Total Charges	Dismissed	Withdrawn	Conditional Discharge	Absolute Discharge	Total Fines £	Costs £	Remarks
Foul hooking of fish	22	2	0	0	0	0	30	30	
Fishing in prohibited waters in Kendal	23	6	0	0	0	0	150	70	
		866	3	60	9	6	21994	8937	

NUMBERS OF ROD AND COMMERCIAL FISHING
LICENCES ISSUED 1988

8.1 Rod and Line

<u>Whole Area</u>	<u>No.</u>	<u>Duty</u>	<u>Amount</u>
		£	£
Salmon season	1959	29.00	56,811
Salmon part season (from 1st June)	2888	22.00	63,536
Salmon season - reduced duty	720	14.50	10,440
Salmon part season - reduced duty.	2,679 805	11.00	8,855
Salmon - 7 day	1945	7.00	13,615
Migratory trout season	1790	12.00	21,480
Migratory trout - reduced duty	476	6.00	2,856
Migratory trout - 7 day	889	3.00	2,667
Non-migratory trout season	30214	5.00	151,079
Non-migratory trout - reduced duty.	5805	2.50	14,513
Non-migratory trout - 7 day	10398	1.75	18,197
Freshwater fish and eels - season.	36017	4.00	144,068
Freshwater fish and eels - reduced duty.	7604	2.00	15,208
Freshwater fish and eels - 7 day	5594	1.00	5,594
	<hr/> 107104 <hr/>		<hr/> 528,910 <hr/>

8.2 Instruments Other Than Rod and Line

Northern District

	<u>No.</u>	<u>Duty</u> £	<u>Amount</u> (including endorsees) £
Whole area - Haaf nets	165	36.00	5940.00
River Ellen - Haaf nets	1	36.00	36.00
R. Eden District - Coops	2	172.00	344.00
South West Cumbria - Garth	1	190.50	190.50
Public waters within jurisdiction - Drift nets.	4	184.50	741.00

Central District

Ribble Estuary - Drift or Hang Nets	6	118.00	711.00
Lune Estuary - Drift or Hang Nets	10	195.50	1958.80
- Draw or Seine Nets	1	169.50	170.50
- Heave or Haaf Nets	26	75.00	1950.00
Duddon Estuary - Draw or Seine Nets	3	162.00	488.80
Kent Estuary - Lave nets	8	88.50	708.00
Leven Estuary - Lave nets	6	73.00	438.00
Totals	233	-	13676.60

Eel Fishing Licences - Whole Area

	<u>Duty</u> £	<u>No.</u>	<u>No. of Nets</u>	<u>Amount</u> £
Fyke Nets	1.00 per net	23	423	423.00
Traps/Putcheons/ Baskets	9.00 per 25 or part thereof	8	500	161.00
Dip Nets	1.00 per net	9	17	17.00
Fixed eel traps	44.00 per trap	-	-	-
		40	940	602.00

8.3 Numbers of Persons Engaged in Commercial Salmon and Trout Fishing

	<u>Type of Net, Etc</u>				
	Haaf	Drift	Draw	Lave	Fixed Engine
<u>Northern District</u>					
Licence Holders	166	4	-	-	3
Endorsees	-	15	-	-	4
<u>Central District</u>					
Licence Holders	26	16	4	14	-
Endorsees	-	34	19	-	-

8.4 General Licences

Number issued = 11

Total value = £2280

8.5 Temporary Licences (Rod and Line, Freshwater Fish)

Number issued = 150

Total value = £664.00